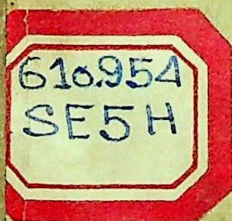

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HINDU MEDICINE

(An Address delivered at the foundation ceremony of the Hindu University, Benares, 1916)



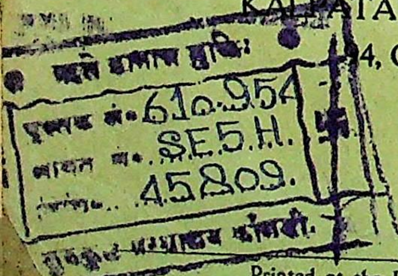


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HINDU MEDICINE.*

BY

Mahamahopadhyaya Gananath Sen, Vidyanidhi, Saraswati, M. A., L. M. S.

YOUR HIGHNESSES, LADIES & GENTLEMEN,

In this glorious effulgence of the dawn of Hindu University, I have the honour and privilege of addressing you on "Hindu Medicine". It is a subject in which every true Hindu of Hindusthan and every sincere seeker of India's walfare must feel strongly interested. Considering the many and varied problems of the regeneration of this great branch of life-saving study that must be faced boldly, I felt no small diffidence in my powers to do justice to the task in all its bearings on an occasion like the present one. Nevertheless, I thought it my duty to respond to this trumpet-call of Pandit Madan Mohon Malviya unfalteringly, lest I should be deemed an ungrateful servant by those who had the goodness to employ me in the past to offices of trust in connection with the All-India Ayurvedic Conference and its offspring—the All-India Board of Ayurvedic Education. So, earnestly craving your indulgence, I am here to appeal to your justice to give Ayurveda its share of consideration in the great work of Renaissance set upon you by a kind Providence and a benign Government. I thank you heartily for giving me this opportunity.

* An address delivered on the 7th February, 1916, in connection with the foundation ceremony of the Hindu University at Benares under the presidency of His Highness the Maharaja of Jhalawar.

THE GOAL IN VIEW

To us—Indians, Ancient India is an expression fraught with a world of suggestions. The ring of sweet music associated with those words brings before our mind's eye innumerable good things of old, the existence of which cannot be doubted. Looking through the dim vistas of the great past, so far as extant literature can enlighten us, we find an endless mass of ruins,—glowing truths and debris of truths,—the roofless pillars of that great superstructure which once shone high in the horizon and dazzled the admiring eyes of the world by its lustrous glory.

With such a conviction as this, I believe, the Hindu University has been started. And the realization of the great ideal, we all hope and trust, is not far distant, as we have taken the vow not merely to lament the bygones but diligently to dig up the diamond-fields which *were* there and *are* yet there though covered up with ruins. We mean to employ the lever of our Western education to turn over these ruins. We shall not cease in our efforts till we get back our treasures and leave them to posterity re-polished and re-plenished for the benefit of the whole world.

THE CLAIMS & IDEALS OF HINDU MEDICINE

Fortunately for the populace of India, Hindu Medicine (or Ayurveda as it is technically called) has lived a useful and life-giving life even under the weight of ruins. It still fights its humane battles for millions of suffering humanity in this land

of its birth. It not only saves many times more people of India than all other systems of Medicine combined, but often conquers, by striking cures, many foreign rivals who, by the way, are only its own alienated offsprings. It has lived, yet, nay outlived crushing influences in the past. And provided its claims are fully recognised by the state and people, it will live a good deal more in the present sun-shiny days of peace and prosperity. This, I believe, is not a very bold prophecy to make.

"Save Humanity"—has ever been the watch-word of Hindu Medicine—"Save Humanity regardless of earthly gain." The great Charaka enjoined—

"नात्मार्थं नापि कामार्थमथ भूतदयां प्रति ।
वर्तते यश्चिकित्सायां स सर्वमतिवर्त्तते ॥
कुर्वते ये तु वृत्त्यर्थं चिकित्सापण्यविक्रयम् ।
ते हित्वा काञ्चनं राशिं पांशुराशिमुपासते ॥

"Not for self, not for the fulfilment of any earthly desire of gain, but solely for the good of suffering humanity, should you treat your patients and so excel all. Those who sell the treatment of diseases as merchandise gather the dust and neglect the gold." Noble sentiments to be found only perhaps in Hindu Medicine! And these are sentiments which not only read fine in books but are to a large extent yet followed by every follower of Hindu Medicine who treats so many of his proverty-stricken fellow beings *gratis* in every village of India, charging nothing for attendance or medicines and often helping them with

money to purchase their diet. Such ennobling sight all around is to be found only in India, where the house of every Ayurvedic practitioner is a miniature charitable dispensary. Such charities are not the matter-of-fact charity of a large endowed hospital but a charity enjoined by the teaching itself. Whilst fully appreciating the great service done by hospitals in these days, I venture to assert that Ayurvedic physicians do more service to the people in any town or village by their private medical charities than many hospitals, so far, of course, as medical (not surgical) treatment is concerned. Do not these heroes and their Alma-mater—the Ayurvedic School of Medicine—deserve well of the state and the people ?

What is Ayurveda ?

"Ayurveda" is the "Science of Life" or the great world science of Medicine, which has for its object not only the protection of human life but also the life of animals and even of plants. Hindu Medicine is but a poor expression to imply Ayurveda. Ayurveda is not only Medicine but Medicine, Surgery, Midwifery, Ophthalmology, Treatment of mental diseases etc. So great indeed was the progress made in Ayurveda that the eight different sections of this great Science and Art had, at one time, schools of different Specialists with massive libraries of differentiated literature to back them. I do not propose to go into details here, but I may mention in passing that the very surgical instruments and the many surgical

operations which Western surgery boasts of today were mostly devised by the Hindu Surgeons.

Veterinary Science, too, in its different sections developed considerably as a branch of Ayurveda. The care and treatment of horses was dealt with by Shalihotra Samhita, of cattle by Gautama Samhita, of elephants by the great work Palakapya Samhita—the last of which still survives and has been published in Poona. Such then was the scope of Ayurveda—and such saving of life its object and meaning. Could this all be quackery as our opponents put it ?

A Brief Historical Survey.

"Modern histories of India "—as I have said in the English Introduction of my Sanskrit Text-Book on Anatomy *Pratyaksha Shariram*—"begin where the true history of Ancient India ends. The birth of Buddha or the reign of Asoka the Great marks not the beginning but the end of India's past glory. A true history of the great achievements of the sons of India before that epoch is yet to be written. It was during that period extending over hundreds of years that the Medical Science as well as many other branches of science and literature made great progress and shed their lustre on distant climes like Egypt, Greece, Rome and Arabia. Historians of antiquity have shown by no slender evidence that the colonization of Egypt by Indians took place during these pre-historic times. The name "Misra Desa " (a mixture) applied to Egypt and the costume and customs

of the old Egyptians lead one to the same conclusion. Mr. Pocock in his valuable work "India in Greece" has shown by irresistable internal evidences that Greece owed her original civilization to India,—her very mythology and old names were from Sanskrit literature. The civilization of Rome was a product of later age and both Greece and Rome owed a great deal to the Buddist preachers, sent out by Asoka and other Buddhist princes. The dress and manners of ancient Rome closely resembled those of ancient India. Arabian civilization came much later and Arab historians like Al-Beruni acknowledge in plain terms the great intellectual debt they owed to India. But while Egypt survives only in her mummies and pyramids, the ancient glories of Greece and Rome have been nearly effaced under internal dissentions and the barbarian invasions. If the other half of Europe, now the great nation-builders and educators of the world, had not come to their rescue, old Greece and Rome would have been now nearly forgotten. But a great part of the ancient glory of India still survives—not-with-standing greater crushing influences in the past-in the modest hamlets of the simple pandits. Hindu Medicine still holds its own to no mean extent against all foreign rivals. Intrinsic merit based on solid clinical foundations cannot be denied by thoughtful men to such an exponent of ancient glory, whatever its shortcomings at the present day.

Ever since the invasions by the Greeks (327 B. C.), India had so many vicissitudes of fortune that one who arrays the facts of history before the mind's eye,

can hardly wonder how so much of the past glory was lost. The real wonder is how so much has yet survived. After the great invasion of Alexander, came the devastating hordes of Scythians and after them the locust armies of the Hunas—all of whom continued bloody warfare and pillage for hundreds of years. History bristles with the accounts of the horrors perpetuated by these barbarians. No doubt, much of the treasures of Indian literature was lost during these dark ages of pillage and incendiarism. Even during the great revival which began with the reign of Yasodharmadeva Vikramaditya, surnamed Shakari or the mighty destroyer of the Scythians and Hunas (5th Centuary A. D.), only a part of the lost glory could be recouped by the intellectual luminaries of the period. But the worst came when since the advent of India's arch-enemy Mahmud of Ghazni (11th Century A. D.), the upper half of India was overrun and cruelly sacked, times without number, by the savage saracenes. Towns and villages were burnt and looted and kingdoms crumbled to pieces. Eventually, even the Deccan and Bengal did not wholly escape their depradations. Very few of the limited number of written manuscripts, already thinned in bulk by the previous invaders' atrocities, could have survived such tremendous shocks. A feeble revival came again during the comparatively peaceful reigns of Akbar, Jahangir and Shajahan, all of whom were lovers of literature. But with Aurungzeb followed another reign of terror and Hindu-hatred and after him a period of rapine and anarchy which

made the cultivation of science practically impossible. Now, if the great libraries and universities of Belgium could not withstand the ravages and incendiarism of the twentieth century Huns, the Germans, was it possible that the meek unprotected hamlets of the Pandits could save their literature before the Scythians and Huns and a Mahomed and a Ghori, a Chengiz Khan and a Nadir Shah, carrying havoc with torch and sword ?

Yet, if the destroyers of India came from close quarters, the rescuers of India came from far away. The greatest renaissance has come at last—now that under the benign peaceful rule and kind encouragements of our kind-hearted and enlightened Government, great researches in Indian literature mark the mighty awakening of India from her long slumber." (*Pratyaksha Shariram*—Introduction.)

The Lost Literature

Great and permanent was the loss suffered by Ayurveda as in fact every other branch of Science and literature during the evil times that befell India. Numerous original works of the master minds quoted in the extant works and commentaries are now not available. Of the school of physicians headed by the sage Atreya, not only the six great works or Samhitas written by his six pupils—Agnivesa, Bhela, Jatukarna,, Parasara, Harita and Ksharpani—but also other great works called Visvamitra Samhita, Kharanada Samhita, Kapila-tantra, Gautama-tantra etc. are apparently lost to us. Only one of them,

the Agnivesa Samhita—thrice revised and recast—survives in skeleton and is known as the famous *Charaka Samhita.* A spurious work passes for Harita-Samhita, and Bhela Samhita has been found in crippled condition in the Tanjore State Library. * Of the school of Surgeons headed by the Royal master Dhanwantari who held his great Ayurvedic University in this very city of Benares, almost all the mighty works by his pupils, Susruta, Paushkalavata, Gopura-rakshita, Bhoja, Bhaluki, Karavirya, Vaitarana etc. have passed into oblivion except in the numerous quotations in the old commentaries still available. Only one of them, the *Susruta Samhita*, as a revised and recompiled summary of the great original called Vriddha Susruta survives to tell the tale of mutilation. The recompiler of Susruta drew largely from a great work by Videha on the diseases of Eye, Ear, Nose and Throat, but this as well as the large Samhitas on the same subject by Nimi, Kankayana, Gargya, Galava, Chakshushya, Satyaki, Saunaka, Karala, Krishnatreya etc live only in quotations. In diseases of children, none of the works of Jivaka, Parvataka, Hiranyaksha etc. have been yet found out. In Toxicology, of the great Samhitas of Kasyapa, Alambayana, Usanas, Sanak, Latyayana etc., only the first has been traced incomplete in the Tanjore State Library by the learned Pandit Yadavji Tricumji of Bombay. In the sections of Rasayana and Vajikarana—the two great distinctive branches of Ayurvedic literature, the great works by Patanjali, Vyadi,

* The work has been since published by the Calcutta University.

Vasishtha, Mandavya and Nagarjuna survive only in some quotations and inscriptions. The existence of these and other authoritative works only about a thousand years ago could be proved by unquestionable evidences, which I have quoted in the Sanskrit Introduction of my work—"Pratyaksha Sariram".

It may not be out of place here to observe, in passing, that the decline of Buddhism practically synchronised with the decline of Hindu Medıcine. The chronicles of Buddhism clearly show that in the universities of Nalnada and Takshasilla (Taxilla), two branches of literature were studied particularly, viz. Hetu Shastra or Logic and Chikitsa Shastra or Medicine. Benevolence being the watchword of Buddhism, there was no lack of hospitals and medical charities both for men and animals during the reigns of Bimbisara, Asoka and other Buddhist princes. We hear the name of the famous physician Jivaka—(Surnamed "Komarabhachcha" or Kaumarabhritya ?) in connection with the court of Bimbisara. Both he and his great teacher Bhikshu Atreya are said to have attended the great Buddha himself and his followers. Again the famous Buddhist patriarch Nagarjuna is believed by many to have been the reviser and recompiler of the present day Susruta. Vagbhata, the well-known Ayurvedic author of reputation next only to that of Charaka and Susruata, was also a Buddhisht of Sind who lived probably in the 5th or 6th century A. D. He has left us two valuable works, the *Ashtanga Sangraha* and the *Ashanga Hridaya*,—which may be called a large

Encyclopœdia and a small comprehensive epitome of Ayurvedic literature. It appears from a close study of these works, however, that the decline of Ayurveda had already begun in Buddhistic times when, finding the old literature perishing fast, Vagbhat worked hard to summarise all the medical information good, bad or indifferent that he could then lay his hands upon. Many authors of the famous Rasa-tantras or works on Medical Chemistry too, appear to have flourished during the Buddhistic period.

We are, however, landed on such a time that most of these names (of which I have given nearly fifty) will come, not only to the lay public but also to many Ayurvedic physicians and scholars, as new revelations. Is it not our duty, unworthy sons as we are of worthy fore-fathers, to unearth these great works like the illustrious Lieutenant Bower, who found out in Chinese Turkistan, the famous Ayurvedic work called the Bower manuscripts so ably deciphered by the indefatigable Dr. Hoernle of Oxford? I also trust that Dr. Stein who, working under the auspices of the Government of India, has just returned from his manuscript-finding tour in Central Asia will add to our knowledge of fresh works of Hindu Medicine along with those of various other branches of Sanskrit literature by bringing to light numerous works which so far exist only in name.

PAST SUCCESSES.

Most of you, I believe, have heard of the past glory of Ayurveda. When the greater part of the

world was submerged in the abyss of ignorance, it is the Indian sages who first understood the necessity of dissection of the human body in the education of Physicians and Surgeons. Says Susruta, writing in unmistakable language two thousand years ago—

तस्मान्निःसंशयं ज्ञानं हर्त्रा शल्यस्य वाञ्छता ।
शोधयित्वा मृतं सम्यग् द्रष्टव्योऽङ्गविनिश्चयः ॥
शरीरे चैव शास्त्रे च दृष्टार्थः स्याद् विशारदः ।
दृष्टश्रुताभ्यां संदेहमवापोह्याचरेत् क्रियाः ॥

(Susruta, Sharira, Ch. V)

"Therefore, whoever wishes to practise Surgery, must prepare a corpse in the proper way and see by careful dissection every part of the body in order that he may have definite and doubtless knowledge." Compare with this what Dr. Puschmann says in his "History of Medical Education" about the practice of dissection in Europe—"Dissection of the human subject was in the first centuries of the middle ages opposed by religious and political ordinances and also by social prejudices".

Circulation of blood was understood with fair clearness long long before the much-talked-of discovery by Sir William Harvey in the seventeenth century. Let me quote a passage here to illustrate this :

"तेन मूलेन महता महामूला मता दश ।
ओजोवहाः शरीरेऽस्मिन् विधम्यन्ते समन्ततः ॥
येनौजसा वर्त्तयन्ति प्रीणिताः सर्वजन्तवः ।
यदृते सर्वभूतानां जीवितं नावतिष्ठते ॥

यत् सारमादौ गर्भस्य योऽसौ गर्भरसाद्रसः ।

संवर्तमानं हृदयं समाविशति यत् पुनः ॥" इत्यादि ।

(Charaka, Sutra, Ch. XXX)

"From that great centre (the heart) emanate the vessels carrying blood † into all parts of the body—an element which nourishes the life of all animals and without which life would be extinct. It is that element which goes to nourish the foetus in utero and which flowing into its body *returns to the mother's heart.*"

And wonder of wonders, what could have been discovered by the ancient sages of India over a couple of thousand years ago came as so great a surprise to most medical men in Europe in Harvey's time that "No doctor above the age of forty could be persuaded to believe in the impossible suggestions" of Harvey who was condemned and hooted out of society for his discovery (Vide Hume's *History of England*).

The theory of *Vayu*, *Pitta* and *Kapha* was also a great discovery which, unfortunately, has been much misunderstood by Western Scholars judging by the wrong mercenary translation rendering these terms "Wind, Bile and Phlegm". The proper explantion of this theory will take up a treatise by itself, but let me observe here in passing that the word *Vayu* does not imply "Wind" in Auyrvedic literature but comprehends all the phenomena of motion which come under the functions of life—or to be more explicit—functions

† The word ओजः is evidently used in the text in a figurative sense. The last couplet proves it.

of the Central and Sympathetic Nervous Systems; that the word *Pitta* does not essentially mean Bile but signifies the function of metabolism and thermogenesis or heat-production comprehending in its scope the process of digestion, colouration of blood and formation of the various secretions and excretions which are either the means or the ends of tissue-combustion : and that the word *Kapha* does not mean Phlegm merely but is used primarily to imply the function of—cooling and preservation (thermo-taxis or heat-regulation) and secondarily the various preservative fluids, e. g. Mucus, Synovia etc which are the manifest forms of that function. We regret, we cannot do justice to this subject here for want of time but we hope the above would give a clue to the student who means really to investigate. It must be remembered that the theory of Vayu, Pitta and Kapha is not the same as the old exploded humoural theory of the Greek and Roman Physicians who, though they borrowed the idea from Ayurveda, probably failed to grasp the true meaning of the theory. I am convinced that the truth and the value of the Ayurvedic theory can be verified. It affords sensible explanations of certain otherwise in-explicable facts in the physiological cycle of life as well as in the causation and amelioration of diseases and their symptoms. It can guide you in understanding the laws of general Therapeutics—which it would be much to the advantage of any medical man to learn. I dare say that studying the subject with an open mind, he will be converted to believe in

the theory. As we find in daily practice, even a half-educated Ayurvedic physician who remembers the laws of Etiology and Therapeutics and Dietary hinging upon this theory fares pretty well by the bedside of the patient.

The advances made in Chemistry by the ancient sages have been already dealt with by the distinguished scholar Dr. P. C. Roy of Calcutta. When we consider the remote age in which these advances were made, we have to bow to the wisdom and ardent spirit of research which characterised the work of the Ancients. In Botany, too, of which only scanty records are available in the writings of Raghava-Bhatta, Sharngadhara, &c., some material advances appear to have been made. Plants were called "Sthavara-Jiva" or stationery animals which could feel pleasure and pain. (Cf. "अन्तःसंज्ञा भवन्त्येते सुखदुःखसमन्विताः") This indeed is a fact which has been at last proved by accurate experiments by the illustrious Professor Dr. J. C. Bose of Calcutta. A regular Symptomatology and treatment of Plant-diseases were also known under the name of "Vriksha-Ayurveda," which I have already referred to and some portions of which are still available in the writings of Sharnagadhara and Agnipurana.

In the field of Materia Medica and Pharmacy, the properties of drugs and foodstuffs were investigated and described by a terminology the meaning of which properly understood does not fail in most instances to give a correct insight into Therapeutics. Unfortunately, however, this terminology has yet

remained a sealed book to those who have judged it from inaccurate translations. In Pharmacy, the art by which the properties of a drug or drugs are imbued in spirits (as in A'savas and Arishtas) in Ghee, Oil, Syrup, etc. was well known. Therapeutics of mercury and its compounds and other minerals, finest preparations of which in a form assimilable by the human system are made, show the great advances that yet mark the excellence of Ayurvedic Medicine. For instance, it is not yet known to Western Medical men that Mercury, when combined with Sulphur as in the Black-Sulphide or Red-Sulphide can never produce Mercurialism,—a knowledge which is the birth-right of all Ayurvedic Physicians. I have seen Western Doctors including such authorities as Sir Pardey Lukis use the well-known preparation of Mercury known as "*Makaradhwaja*" without any prejudice and with a fairly proper judgment of its true value. What a pity then that, without a shade of medical training, Chemists like Professor Neogi have rushed in boldly to disclaim the real therapeutic merits of "Makaradhwaja." Chemistry, till now at least, can little explain why natural Salicylates are more effective than the synthetical Salicylates, why Beechwood Creosote is more valuable in Therapeutics than the Coal-Tar derivative of the same name, why the true mineral waters are more reliable than their exact imitations made by the Chemists.

In this connection, I should also mention, in passing, that one particular feature of Ayuevedic works, even of later periods, was that even foreign drugs

having valuable therapeutic qualities could be taken up and used without any prejudice, for instance, such drugs as Rhubarb, Opium, Jamaica Sarsa, etc. (Vide the writings of *Bháva Misra.*)

In Medicine proper, it is enjoined that diagnosis should be made by the five senses supplemented by interrogation. The method of direct auscultation or hearing of breath-sounds, etc. was probably known to them as we find its evidence in the following passages of Sushruta ;—(श्रवणेन्द्रियग्राह्याः, "सफेनं रक्तमीरयन्ननिलः सशब्दो निर्गच्छति" इत्येवमादयः (Sushruta : Sutra, Ch. X) which seems to refer to the crepitations or *ráles*, audible in Pneumonia and other lung-diseases. The Bacterial origin and the infective nature of certain diseases as the eruptive fevers, Leprosy, Small-pox, Tuberculosis etc. have also been clearly indicated in such passages as these :—

"सर्वाणि कुष्ठानि सवातानि सपित्तानि सकफानि सक्रिमीणि चोपदिश्यन्ते ।"

(Sushruta, Nidana, Ch. V.)

"All forms of leprosy (and some skin diseases) are not only due to the derangements of Vayu, Pitta and Kapha but also of parasitic origin."

Again,

" कुष्ठं ज्वरश्च शोषश्च नेत्राभिष्यन्द एव च ।
औपसर्गिकरोगाश्च संक्रामन्ति नरान्नरम् ।"

(Sushruta, Nidana, Ch. V.)

"Various Skin-diseases and Leprosy, Fever, Pulmonary consumption, Ophthalmia and diseases borne

by air and water are usually capable of transmission from one man to another."

Also,

"रक्तवाहिसिरस्थाना रक्तजा जन्तवोऽणवः। अपादा वृत्तताम्राश्च सौक्ष्म्यात् केचिददर्शनाः।" इत्यादि (Sushruta, Uttara, Ch. 54.)

"There are various fine organisms which circulate in the blood and are invisible to the naked eye; usually these look like round bodies of copper colour and are without legs. They give rise to various forms of skin diseases etc."

But most important are the principles of Medicine recommended in the treatment of Fevers, Phthisis, Bowel Complaints and various chronic diseases of the Nervous System which are so elaborately and rationally dealt with that the western medical men, who take the pain to study them in original would considerably profit by them. Such a study by one, namely, Dr. George Clarke, M. A., M. D. of Philadelphia, reading Charaka Samhita even in a half-done translation elicited the following remark :—

"As I go over each fasciculus (of Charaka), I arrive at one conclusion and that is this : If the Physicians of the present day would drop from the Pharmacopœia all the modern drugs and chemicals and treat their patients according to the methods of Charaka, there would be less work for the undertakers and fewer chronic invalids in the world."

Consider also the very excellent and effective methods of medication by the various retentive

enemata of certain decoctions and oils (called *Nirúha* and *Anuvásana*), so systematically described as two of the five essential methods of treatment. All these unfortunately have been mostly forgotten or abandoned by the present-day Kavirajes but they demand our careful attention and study nevertheless, as they are productive—I say from experience—of very agreeable results in many chronic diseases. In the treatment of diseases of the Eye, Ear, Nose, and Throat, not only various effective collyriums, eye-lotions, gargles, vapours, sprays, blisters etc have been described but also a particularly useful method called "Siro-Virochana" or the use of Errhines has been prescribed with detailed instructions. The last is a method of treatment I have often found very effective in many chronic cases, which seemed incurable according to the Western System of Medicine. It is a method which learned doctors would do well to follow in certain afflictions like obstinate head-ache, Gloucoma, Optic Neuritis, etc. The method is simply that of inducing catarrh with the aid of some acrid dry or fluid Errhines (e. g. the powder or decoction of *Ghosha* fruits or fruits of *Luffa Bindal*, *Abrus Precatorious*, etc.)

In Surgery, the progress made seems to have been wonderful. Major operations like Amputations, Laparotomy (i. e. opening the abdomen for intestinal obstruction or other troubles), Lithotomy (or extraction of stone) and even Trephening of the skull were well-known tcour old sages. The excellent classification and description of the surgical instruments

under different heads as found in Sushruta and Vagbhata compel the admiration of those who take pains to study them with care. There can be little doubt that the old Greek and Roman surgical instruments that are found preserved in the museum of Naples were only the replicas of Hindu instruments yet found accurately described in texts at least two thousand years old. Unfortunately, however, here too as in other branches of Hindu Medicine, ancient surgeons have been wronged by certain scholars of Western Medicine like the Thakore Saheb of Gondal and his follower Dr. G. N. Mukherjee of Calcutta giving fantastic descriptions of Hindu surgical instruments which never existed except in their imagination. In a paper read partly before the Sahitya Sabha of Calcutta and partly before the fifth All-India Ayurvedic conference (now being published in the "Indian Medical Record"), I have tried to show from old authentic texts that most of the modern surgical Instruments are only slightly modified reproductions of the ancient Instruments. I have already cited instances of these namely, the 'Simhamukha Yantra' which is nearly identical with the modern Lion forceps ; and Allingham's Speculum, which agrees closely with "the four-bladed expansile instrument" described by *Vágbhata* ("मुद्रावद्धं चतुर्भित्तमम्भोजमुकुलाननम्") *Ashtánga-hridaya* : Sutra, Ch. 25.)

In Midwifery, the different malpositions of the foetus at birth were well-understood by the Ancients and the different methods of treatment by version or turning the foetus in Utero, Embriotomy and

Caeserian section described in ancient works stand as monuments of past glory.

Last, though not least, come the two specialised branches of Medicine—of Hygienic Medicine I should say—in which methods of warding off disease and age and keeping the sexual vigor intact have been dealt with. These are the branches known as the *Rasáyan* and *Vájikarana.* The main object in view of such treatment was the restoration of vigor and immunity ('or *Vaishnavi Shakti*' as they call it) by the preservation of the vital fluid, the necessity of which is now being faintly realised in Western Medicine. The researches of Brown-Sequard and Metchnikoff and other eminent scholars have only recently shown the importance of this subject in Western Medicine. These two sections of Medicine, however, yet survive partly in Ayurvedic Medicine and partly in Unani. I would draw the attention of all medical men to the necessity of patient Research in these lines of Ayurvedic Medicine.

CHARGES AGAINST AYURVEDA—ANSWERED.

I now proceed to answer certain charges that have been levelled against Ayurveda by its un-informed opponents. We have heard it said recently by Col. Jackson speaking in the Bombay Legislative Council that Ayurveda was "a very antiquated and a very empirical and un-scientific method of treatment and that its revival would be a most retrograde step." Now, from the short resume of Ayurveda given by me,

could you think these charges were true ? And if there was any empiricism, was it the monopoly of Ayurveda whilst Western physicians used Quinine, Arsenic and Iodides with perfcct rationale ? The very accurate principles of Medicine which every well-educated Ayurvedic physician follows in the treatment of diseases,—the principle, for instance, of starving (up to a certain limit) a fever-patient suffering from Auto-intoxication (called '*Sámatá*' in Ayurveda), of giving mild purgatives in the first stages of Dysentery, of giving plenty of fatty food in Tuberculosis, of enjoining salt-free diet in Bright's disease and Anaemia, of treating obstinate cases of chronic diarrhoea and Sprue with increasing doses of Rasaparpati (specially prepared black Sulphide of Mercury) and a pure milk diet, are these principles merely empirical and not scientific ? And is it all scientific to employ right and left all these new patent drugs of Europe and America which are thrust upon you with wily advertisements giving formulæ which have only the semblance of Science ? Are they prescribed with perfect satisfaction of rationale ? What rationale is there in being told that Salvarsan is the Dioxy-diamido-arseno-benzol ? It is the clinical results that ultimately count and if you follow sound principles of treatment, a little empiricism will always stand you in good stead. "The merely Scientific physician", says Dr. Clifford Albutt (a well-known English authority on Medicine), "is apt to be blind to useful manœuvres which rest rather upon the accidental than the more permanent qualities of things." And he goes on to say—

"Prevalent opinions, though not formal truths, contain truths and this the practical physician does not fail to perceive: nor does he forget that the observations of any person however profound, being the observations of an individual of brief life and limited faculties, need some tempering by traditional lore and by the embodied opinions of a vast number of observers over a long period of time." Why then bring the false charge, found nowhere "in the Dictum of Charaka"—as Col. Jackson puts it—"That the intelligent physician should adhere to official recipes given in books of Medicine and not introduce innovations however logical etc."? On the other hand, Charaka has said in clear terms :

कृत्स्नो हि लोको बुद्धिमतामाचार्यः शत्रुश्चाबुद्धिमताम्, अतश्चाभिसमीक्ष्य बुद्धिमताऽमित्रस्यापि धन्यं यशस्यमायुष्यं पौष्टिकं लौकिकमभ्युपदिशतो वचः श्रोतव्यमनुविधातव्यं चेति । (Charaka, Vimana, Ch. VIII).

"The intelligent should look upon every one as their teacher and gather the best in applied therapeutics even when that knowledge comes from the enemy." Again says Vagbhata—

अज्ञातशास्त्रसद्भावान् शास्त्रमात्रपरायणान् ।
वर्जयेत्तान् भिषक्पाशान् पाशान् वैवस्वतानिव ॥

(*Ashtánga-hridaya* : Uttara, Ch. 40.)

"Those that follow the recipes of books blindly and are not capable of reasoning their application should be condemned and looked upon as the snares of death," Again, the learned Colonel falls foul of Ayurveda because in the general list of mineral,

vegetable and animal substances used in Ayurvedic medicine are found included "fat, bile, marrow, blood, flesh, urine, hoof, etc." For is not hog's lard used in Western Medicine sanctified by being called "Adeps" and ox-bile made delicious when called "Fel Bovinum" and so forth ? Certainly antiquated Sanskrit names could not impart the same acceptability that jaw-breaking Latin names of the British Pharmacopœia can ? So, down with antiquated Ayurveda which prescribed these substances and up with Bone-marrow Tabloids, Raw-meat-juice and calf's foot jelly ! Fortunately, the Rulers of our land have reasons superior to such wisdom !

I do not here propose to discuss or defend some effete material that has crept into mutilated Ayurvedic literature and which any opponent of Ayurveda could take the pains to gather to scandalise Ayurveda. Such effete material is nothing but interpolation and is like the chaff that must be eliminated if the nutritious grains are wanted.

The charge that Ayurveda is not a progressive system is not so much a charge against the science itself as against ourselves. Ayurveda progressed considerably whenever there was peace and prosperity in the land ; it is again showing signs of life and progress all over India. We must not forget the vicissitudes that befell all Indian literature during so many centuries. The spirit of acquiring knowledge left to you by Ayurveda is the spirit of progress. It demands that you should investigate and learn and add to the store of knowledge left to you by the

ancients.—Even shepherds and cow-boys knowing the properties and identification of drugs were not despised by Ayurvedic authorities. They borrowed from foreigners whenever they found it necessary, of which I have already given examples. So we do injustice not only to ourselves but also to our forefathers when we suffer Ayurveda to remain at a standstill and allow our opponents to call it stagnant.

A WORD TO WESTERN MEDICAL MEN.

Whilst on this subject, I beg to offer a piece of advice to those right-minded friends of mine, who have, from time to time, evinced a commendable desire to learn Ayurveda. To these I say, try to have a working knowledge of Sanskrit, before you begin to study Ayurveda. Learning Sanskrit,—at least so much as to prepare one for the study of Ayurveda is not so difficult as is usually supposed, especially if the attempt is made to learn the language, more than to learn the intricacies of Sanskrit Grammar. I know some friends of mine in the medical circle, who have taken great pains to learn French or German, in order to be able to read certain works on Medicine and Pathology in original. Now, if knowledge of French or German is useful and important in the study of Western medical literature, the knowledge of Sanskrit is essential and indispensable in the study of Eastern medical lore. Again, the Bengali and English translations of Ayurvedic works that have been published now and again are mostly

the work of mercenary and lay, irresponsible men who know and care to know little of the technique of the Medical Science. These translations, very unlike the excellent English renderings of the German and French works, betray ignorance and lead to mis-interpretation. Even learned and careful scholars of the West, like Dr. Wise, Dr. Royle, Sir William Jones, &c., to whom we must be highly grateful for their partiality to Eastern literature, have often, though unconsciously, cast shame on Ayurveda by mis-undrstanding certain great truths (Cf. the mis-interpretation of Vayu, Pitta, and Kapha, metioned before). Then again, there are those biassed and hasty judges, like say, Haas and other writers, who have mentioned Ayurveda only to condemn it. Many an apparition might be conjured up and conjectured in the darkness of ignorance. And for those honest students of Eastern medical literature who have the mind but not at present the means of Sanskrit knowledge to learn the subject fully, I have only to add—Beware of these apparitions !

In this connection, Western medical men should also remember that many of the principles of treatment recommended in Ayurveda are almost identical with those of Western medicine—only the drugs and methods of administrating them are somewhat different. So, an open-hearted and liberal co-operation of both should be a source of great help to the profession as a whole and to the people of the whole world.

THE PRESENT STATE OF AYURVEDA AND THE NEED FOR REFORM.

Whatever may have been the past glory of Ayurveda, it would be self-deception on our part to think that we still sit on a high pedestal. The fact is unfortunately just the other way. The number of Ayurvedic physicians in India is legion but soundly educated exponents of the ancient system are not numerous. Besides this, there is yet a good deal of conservatism, which is contrary to the liberal spirit of Ayurveda and which must be overcome. Much of the old valuable literature has been lost and what exists is not often studied in scientific spirit. If the sound principles and methods of treating diseases with the time-honored recipes of reliable efficacy were not there, the Ayurvedic system of medicine would have been dead by this time in the struggle for existence. So, let us not be slow in recognising the crying need for reform. Let us clearly understand that our Anatomy and Physiology might have been comprehensive at one time, but as we have them at present, they need to be thoroughly sifted and supplemented. Our Chemistry and Botany and Materia Medica might have been once ahead of the West, but now we must recast and remodel them according to the present high scientific standards. We may have once made great progress in Surgery but we must confess that we now lag sadly behind. And again our old methods of study might have been of a high order but we must not be timorous to admit

that the present methods by which so-called Kavirajas are manufactured out of idle pupils or compounders in many cases are fit to be mercilessly condemned. And even in the great departments of Medicine and Pharmacy which are our great pride and mainstay, we must work hard to demonstrate and utilise the principles of Medicine that form the bed-rock of our treatment. In other words, we must establish them on the sound-footing of actual observations and experiments according to the methods of the West we must make good the losses we have already sustained. To cite a commonplace simile, Ayurveda is just like the famished old father who leans upon his grown-up son for food and support. But because the father is old and diseased, I trust, it will not be proposed to kill him altogether.

It is not only a question of sentiment. The pick and flower of our countrymen who have acquired mastery over the Western medical Science must be inly aware that the huge vaunted machinery of Western Pathology and Bacteriology and Medicine are often found inert and clogged when certain chronic diseases are encountered; diseases which every now and then the "old irrational" Vaidya or Kaviraj manages to cure with traditional recipes of his forefathers. So, true scientific spirit demands that we should all cast off prejudice and investigate with an open mind. It is a good sign of the times that such an investigation into the action and uses of indigenous drugs has begun to be made by foreigners and our countrymen following in their footsteps, from the

western point of view. Unfortunately, Ayurveda will not profit much by the results of these investigations. The Western Pharmacopœa will profit by them and pamper on them whilst the chances are the Ayurvedic Pharmacopœa will grow poorer. Should we remain silent on-lookers in this crisis ?

The Work of Regeneration Already Begun.

It is a matter for congratulation that already some good work has begun to be done by Ayurvedic physicians. During the last ten years, the spirit of awakening is abroad,—as evidenced in the All-India Ayurvedic Conference, of which seven annual sessions have been held. There has been founded the Ayurveda Mahamandala, the representative standing Committee of the Conference, constituted annually of members elected from all parts of India and working all the year round. Side by side and under its auspices works the All-India Board of Ayurvedic education, which holds simultaneous examinations in several important centres of India as Calcutta, Dacca, Madras, Poona, Bombay, Ahmedabad, Ajmere, Lahore and Delhi. In these examinations, the best and trusted representatives of Ayurvedic medicine from all provinces of India are appointed examiners and practical examinations are also held under local management. The new curricula of studies laid down by the Board are according to up-to-date Syllabus in Chemistry, Anatomy, Surgery, Toxicology Med. Jurisprudence etc. It is hoped that Ayurvedic

practitioners going through these courses of study will raise the status of their profession. The examinations, I may add, are becoming more and more popular and it is expected that with better arrangement for education they will be more popular still. Of Ayurvedic Schools too, the number is daily increasing. We have an excellent school at Madras under the Management of Vaidyaratna Pandit D. Gopalcharlu, which has a charitable dispensary attached to it. There is a similar one in Bombay under the management of Dr. Popat Prabhuram who devotes his whole energy for its welfare. In the Maharaj College of Jaipur, The Ayurvedic section is doing good work in training up students under such Professors as the learned Pandit Lakshmiram Swami Ayurvedacharya. There is also an excellent Ayurvedic school at Poona under the learned Pandit Krishna Sastri Kavade B. A., who works with undaunted spirit. There are Government Ayurvedic colleges in Travancore and Mysore, some of which are sending out their passed students to various parts of India with good stipends to enable them to make post-graduate studies. The Ayurvedic Section of the D. A. V. College of Lahore is doing good work and as I know from a letter from the Principal, is going to be remodelled and equipped with some up-to-date acquisitions. There are other Ayurvedic schools like the Lalithari Ayurvedic College of Pilibhit U. P., the Vanwarilal Ayurvedic School, Delhi, the Gurukul Ayurvedic school, Kangri etc. all of which are doing excellent work in their own ways. In Bengal,

though there are two or three schools of Ayurveda which work indifferently,. Ayurvedic teaching is mainly imparted under the Tol-system and Apprentice-system combined. Almost every eminent Kaviraj there not only teaches a number of students but trains them under his personal care, giving them free board and lodging for several years. So, the charge that there are no Ayurvedic schools in India heard of recently from some quarters must fall through altogether.

No less than fifty Ayurvedic Journals in seven different languages of India are also being published monthly, some of which are eager to absorb and expand the knowledge of recent discoveries in the medical world. All-India Ayurvedic Exhibitions are being held year after year by which we are coming daily to gain more knowledge about the uses and identifications of indigenious drugs and rare books hitherto unknown. Ardent scholars like Lieutenant Colonel K. R. Kirtikar I. M. S., F. L. S. (retired) of Bombay and Major B. D. Basu I. M. S. (retired) of Allahabad are working hard to collect, identify and fully describe plants of Indigenous Medicine. Text-books on Anatomy, Physiology, Pathology, Toxicology, and up-to-date Hygeine are being written for the benefit of Ayurvedic students in Sanskrit, Marathi, Hindi and some other languages of India. Sanskrit being yet the common language of scholastic India, Sanskrit text-books are much in demand already. Some rare books on Ayurvedic Medicine too are now being published in the Ayurvediya Gran-

thamala series by the indefatigable Pandit Jadavji Tricumji of Bombay. The Anandasrama Sanskrit Press of Poona and the Governments of Mysore and Travancore as also the Asiatic Society of Bengal also deserve our thanks for some valuable publications.

A Word of Appeal.

Yet, I beg to point out that the good work that is being done is too meagre when compared to the vast campaign before us. Long manuscript-collecting tours should be undertaken by ardent well-informed scholars having the regeneration of Ayurveda as their aim and object. Remembering that the ravages of the reckless invaders of India did not spread so wildly into the Deccan as in other parts of India, I venture to assert that such tours in the southern half of India would be productive of great results. Well-equipped Ayurvedic colleges having full facilities for anatomical dissections, physiological demonstrations, and Physics and Chemistry classes should be founded in every province and affiliated to the Hindu University. To these should be attached Ayurvedic hospitals for the treatment of chronic diseases particularly to supplement the good work of already existing hospitals conducted on western lines. Such institutions should form the fountain-springs from which direct clinical knowledge should flow abundantly into the minds of Ayurvedic students. Pharmacological and analytical laboratories for the investigation of indigenous drugs should also work

unceasingly as parts of these institutions, and for new discoveries and demonstrations on Ayurvedic lines Libraries of Ayurvedic books as also gardens, herbaria and museums of indigenous drugs should also be maintained with proper care to facilitate practical knowledge and research work. All this may appear an order too large for our means but there can be no doubt that such should be our ideals, provided we seriously contemplate the conservation of India's wisdom in Medical Science. The suffering millions of India whom Ayurveda saved for centuries past and is still saving to no small extent demand of us that we should give them the benefits of the same system in all the lustre and exactitude that western methods are capable of giving it. They have built up great hopes and have the fullest confidence in the future work of the Hindu University. So it is for her to set the great ideal in this humane work.

The Ruling Chiefs and the wealthy philanthropists under whose parental care so much excellent work is being done in Ayurvedic schools and charities owe it themselves to expand these institutions up to modern ideals.

It was high time that the state and people moved and helped the Ayurvedic system with unstinting generosity and care. India's need for medical aid is neither small nor limited. Considering the proportion of medical men to the vast population, India of all countries is most poorly supplied with medical aid. The proportion of western-trained medical men to



the teeming millions who are ailing form year's end to year's end with Malaria, Cholera, Plague, Fevers and chronic diseases is simply like that of a drop of oil on the surging ocean. The salvation of diseased India lies in the rejuvenation of Ayurvedic Medicine side by side with the progress of the Western system. There will be no difficulty in obtaining Ayurvedic drugs in abundance. War will not affect their prices. The noble bands of silent workers who are doing so much thankless good work all over India with the aid of indigenous drugs certainly deserve encouragement and not damning. Fortunately, our kind-hearted Rulers are not quite indifferent to this matter. To the voice of the All-India Ayurvedic Conference, they have already responded. The Behar and Orissa Government have already assured us that at the Sanskrit Colleges to be established at Puri and Muzzafferpore, Ayurveda will be included as a subject of study. The old Ayurvedic charitable dispensary at Poona which was abolished according to the provisions of the Medical Registration Act of Bombay has been just revived. For all these considerations our grateful thanks are due to Government. Let us hope that, as time rolls on, our benign Government will come forward with wider sympathies to help the rejuvenation of Ayurveda for the good of humanity. But before that, let us ourselves leave no stone unturned to demonstrate the merits of Ayurveda before the world—for Ayurveda is the heritage, of India first, of the world afterwards.

